

A VOLTAGE-CONTROLLED OSCILLATOR WITH AN AUTOMATIC AMPLITUDE CONTROL CIRCUIT

Abstract of Disclosure

A VCO having an automatic amplitude control circuit in the form of a sensing amplifier provided in the feedback loop to sense the oscillator amplitude and draw current away only when the positive peak voltage is above a certain value. In general, any amplifier may be used in the feedback loop that outputs current proportional to a peak positive input (in a non-linear and asymmetric fashion with respect to the changing voltage). In one example, the amplifier in the feedback loop comprises first and second transistors that are set nominally in cut off and behave as class C amplifiers. The advantage of this amplifier transistor configuration is that the amplifier they form has a low load on the LC tank circuit and a high input impedance.